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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/786,923 | 02/25/2004 | Kang Soo Seo | 1740-000086/US | 4876 |

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| EXAMINER | |
|---|---|
| ADEGEYE, OLUWASEUN | |

| ART UNIT | PAPER NUMBER |
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| 2481 | |

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/786,923 | SEO ET AL. | |
| | Examiner | Art Unit | |
| | OLUWASEUN A. ADEGEYE | 2481 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *10/12/2010*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1 – 10, 13 – 14 and 18 – 25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 – 10, 13 – 14 and 18 – 25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *02/25/2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 101*

1. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Based upon consideration of all the relevant factors with respect to the claim as a whole, claims 1 – 5, 18 – 20 and 24 – 25 held to claim an abstract idea, and is therefore rejected as ineligible subject matter under 35 U.S.C 101. The rationale for this finding is explained below. For example, a method of receiving and recording video data and additional data is of sufficient breadth that it would be reasonably interpreted as a series of steps completely performed mentally, verbally or without a machine.

Claims 9 - 10 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Said claim discloses a “computer readable medium” (line 1). Both said claim and the respective specification fail to disclose whether said “computer readable medium” is limited to a non-transitory medium or transitory propagating signal. Reading said claim under the broadest reasonable interpretation “computer readable medium” is considered to read on a transitory propagating signal. See the Subject Matter Eligibility of Computer Readable Media memo dated February, 23 2010 (1351 OG 212). A claim directed to only signals per se is not a process, machine, manufacture, or composition of matter and therefore is not directed to statutory subject matter. See MPEP § 2106. Thus, both said claim and said specification fail to define said "computer readable medium" to be statutory media.

***Response to Arguments***

2. Applicant's arguments filed 10/12/2010 have been fully considered but they are not persuasive.

In re page 10 of applicants argument, applicants argue that none of the cited references discloses “the first type graphic data and the second type graphic data are configured to be decoded by a corresponding decoder separately and presented on different sub-planes of the plurality of sub-planes" with the "first type graphic data for providing interactive displays" and the second type graphic data for providing' images," as recited in amended claim 1.

In response, the examiner respectfully disagrees. The Mori reference discloses first type graphic data (see [080]. ".....and 822 denotes a highlight decoder for decoding highlight data for DVD menu screen (graphic data of a selected button, i.e., position, color, etc.)….”) and second type graphic data (see [080].”…. Furthermore, 823 denotes a sub-picture decoder for decoding sub-picture data which are multiplexed into the MPEG program stream, and outputting a graphic signal …..”) that are decoded by a corresponding decoder separately. From the above cited paragraph it is clear that there are two separate decoders for decoding a graphic signal the first is the highlight decoder whereas the second is the sub-picture decoder. Figure 9 also clearly shows that the decoders are separate. The above paragraph also clearly shows that the first type of graphic data is for providing interactive displays (see [080]."....  and 822 denotes a highlight decoder for decoding highlight data for DVD menu screen (graphic data of a selected button, i.e., position, color, etc.)….”). The above cited paragraph also discloses

that the second type of graphic data is for providing images (see [080]."…. Furthermore, 823 denotes a sub-picture decoder for decoding sub-picture data which are multiplexed into the MPEG program stream, and outputting a graphic signal ….."). 

Mori discloses overlaying the graphic signals on the video signal (see [079]."… Furthermore, 87 denotes a compositor for overlaying the graphic signal on the digital video signal …."). However he does not disclose anything about the graphic signals being presented on different sub-planes. Konuma on the other hand is brought in to teach that the different graphic signals are configured to be presented on different sub-planes (see fig. 2, fig. 9 and [045]. "…In the graphics generator 20, the background image plane, the still picture plane and the graphics plane are superimposed on the input moving picture plane in an indicated order and at an indicated rate ….."). 

Therefore the combination of Mori and Konuma will arrive at an apparatus that has two separate graphic decoders one for interactive displays and the other for providing images and then superimposing the different graphic planes on the moving picture plane.

## *Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1 – 10, 13 – 14 and 18 – 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mori et al (US 2002/0095531 A1) in view of Konuma (US 2002/0085122 A1).

As to **claim 1**, Mori discloses a method for recording video data and additional data on a recording medium (see [078].”…. In FIG. 7, reference numeral 71 denotes a DVD drive for reading and outputting a coded signal (MPEG program stream) recorded on a DVD …”) , comprising:

receiving the video data and the additional data, the additional data including graphic data and subtitle data, the graphic data including first type graphic data for providing interactive displays and second type graphic data for providing images (see [080]. ".....and 822 denotes a highlight decoder for decoding highlight data for DVD menu screen (graphic data of a selected button, i.e., position, color, etc.)….”) and second type graphic data (see [080].”…. Furthermore, 823 denotes a sub-picture decoder for decoding sub-picture data which are multiplexed into the MPEG program stream, and outputting a graphic signal …..”); and

From the above cited paragraph it is clear that there are two separate decoders for decoding a graphic signal the first is the highlight decoder whereas the second is the sub-picture decoder. Figure 9 also clearly shows that the decoders are separate

The above cited paragraph also discloses that the second type of graphic data is for providing images (see [080].”…. Furthermore, 823 denotes a sub-picture decoder for decoding sub-picture data which are multiplexed into the MPEG program stream, and outputting a graphic signal …..”).

Mori discloses overlaying the graphic signals on the video signal (see [079]."… Furthermore, 87 denotes a compositor for overlaying the graphic signal on the digital video signal …."). However he does not disclose anything about the graphic signals being presented on different sub-planes. Konuma on the other hand is brought in to teach that the different graphic signals are configured to be presented on different sub-planes (see fig. 2, fig. 9 and [045]. "…In the graphics generator 20, the background image plane, the still picture plane and the graphics plane are superimposed on the input moving picture plane in an indicated order and at an indicated rate ….."). 

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have added that the additional data is configured to be presented on a plurality of sub-planes as taught by Konuma to the apparatus of Mori to arrive at an apparatus that is capable of simultaneously displaying plural images having different formats such as moving pictures, still pictures, and graphics on a display (see [002]).

As to **claim 2**, Mori in view of Konuma discloses the method set forth in claim 1. However Mori does not disclose wherein the graphic data and subtitle data are organized into distinct sub-planes

Konuma discloses wherein the graphic data and subtitle data are organized into distinct sub-planes (see fig. 2, fig. 9 and [045]. "…In the graphics generator 20, the background image plane, the still picture plane and the graphics plane are superimposed on the input moving picture plane in an indicated order and at an indicated rate ….."). See motivation above.

As to **claim 3**, Mori in view of Konuma discloses the method set forth in claim 1. Mori does not disclose wherein the plurality of sub-planes include a graphic sub-plane and a subtitle sub-plane.

Konuma discloses wherein the plurality of sub-planes include a graphic sub-plane and a subtitle sub-plane (see [093]. “The above embodiment is applied to the composition (superimposition) of the moving picture plane, the still picture plane and the graphics plane. However, the present invention is not limited to the composition of these pictures, and it may be applied to the composition (superimposition) of image planes, for example, a text plane such as subtitles ….”). See Motivation above.

As to **claim 4**, Mori in view of Konuma discloses the method set forth in claim 1. However Mori does not disclose wherein each of the plurality of sub-planes includes at most two of the distinct regions.

Konuma discloses wherein each of the plurality of sub-planes includes at most two of the distinct regions (see [093]. “The above embodiment is applied to the composition (superimposition) of the moving picture plane, the still picture plane and the graphics plane. However, the present invention is not limited to the composition of these pictures, and it may be applied to the composition (superimposition) of image planes, for example, a text plane such as subtitles ….”). See Motivation above.

As to **claim 5**, Mori in view of Konuma discloses the method Set forth in claim 1. However Mori does not discloses wherein the object is at least one of text, an icon, an image, and a background box.

Konuma discloses wherein the object is at least one of text, an icon, an image, and a background box (see [093]. “The above embodiment is applied to the composition (superimposition) of the moving picture plane, the still picture plane and the graphics plane. However, the present invention is not limited to the composition of these pictures, and it may be applied to the composition (superimposition) of image planes, for example, a text plane such as subtitles ….”). See Motivation above.

As to **claim 6**, grounds for rejecting claim 1 apply to claim 6 in its entirety.

As to **claim 7** grounds for rejecting claim 1 apply to claim 7 in its entirety.

As to **claim 8** grounds for rejecting claim 1 apply to claim 8 in its entirety.

As to **claim 9**, this is a computer readable claim corresponding to the method claim 1. As to claim 9, grounds for rejecting claim1 apply to claim 9 in its entirety. Mori discloses a DVD (see [78]).”…. (MPEG program stream) recorded on a DVD …”). Therefore, claim 9 is analyzed and rejected as previously discussed with respect to claim 1.

As to **claim 10** grounds for rejecting claim 3 apply to claim 10 in its entirety.

As to **claim 13**, this is an apparatus claim corresponding to the method claim 1. As to claim 13, grounds for rejecting claim1 apply to claim 13 in its entirety. Mori discloses three decoders the first for the video signal and the other two for the graphic signals (see fig. 9) and a disc drive (see fig. 1).

As to **claim 14** grounds for rejecting claim 10 apply to claim 14 in its entirety.

As to **claim 18** grounds for rejecting claim 1 apply to claim 18 in its entirety.

As to **claim 19** grounds for rejecting claim 3 apply to claim 19 in its entirety.

As to **claim 20** grounds for rejecting claim 3 apply to claim 20 in its entirety.

As to **claim 21** grounds for rejecting claim 13 apply to claim 21 in its entirety.

As to **claim 22** grounds for rejecting claim 3 apply to claim 22 in its entirety.

As to **claim 23** grounds for rejecting claim 3 apply to claim 23 in its entirety.

As to **claim 24** grounds for rejecting claim 1 apply to claim 24 in its entirety.

As to **claim 25** grounds for rejecting claim 1 apply to claim 25 in its entirety.

## ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to OLUWASEUN A. ADEGEYE whose telephone number is (571)270-1711. The examiner can normally be reached on Monday - Friday 7:30 - 5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter-Anthony Pappas can be reached on 571-272-7646. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

01/06/2011

/O. A. A. /
Examiner, Art Unit 2481

/Peter-Anthony Pappas/
Supervisory Patent Examiner, Art Unit 2481